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0| 10 Intelligenetics
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FastDB - Fast Pairwise Comparison of Sequences
Release 5.4
```

Results file us-08-816-977-48.res made by bobryen on Tue 18 Jun 102 12:48:52-PDT.

Query sequence being compared:US-08-816-977-48 (1-2085) Number of sequences searched: 34 Number of scores above cutoff: 34 Results of the initial comparison of US-08-816-977-48 (1-2085) with: File : 6080400.seq

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File : 6080400.seq																			-5	403
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#### PARAMETERS

4.0	200	
K-tuple		
Unitary	5.00	
Similarity matrix	Gar nenalty	Cd .f score Randomization group

## SEARCH STATISTICS

Standard Deviation 545.42	Total Elapsed 00:00:01.00
Median 11	
Mean 291	CPU 00:00:00.02
Scores:	Times:

Number of residues: 18356
Number of sequences searched: 34
Number of scores above cutoff: 34

The scores below are sorted by initial score. Significance is calculated based on initial score.

A 100% identical sequence to the query sequence was found:

	Frame	
	Sig.	
opt.	Length Score Score Sig. Frame	
init. Opt.	Score	
	ength	
		1 1 1 1 1
	Description	
	Desc	11111
	Name	
	Sequence Name	
	Šě	i

1. US-08-816-977-48 Sequence 48, Application	2085	2085	2085	3.29	0
The list of other best scores is:					
	Length	Init. Score	Opt. Score	Sig. F	Frame
**** 2 standard deviations	above mean	an ***	*		
equence 46, Application	2073		1703	2.43	0
**** 1 standard deviation	above mean	****			
. US-08-816-977-32 Sequence 32,	2127	1226	1606	1.71	0
. US-08-816-977-34 Sequence 34,	2136	1193	1969	1.65	0
-816-977-38 Sequence 38,	990	844	906	1.01	0
. US-08-816-977-10 Sequence 10,	1235	839	868	1.00	0
dard deviation	from mean	*			
-5 Sequence 5, Application U	σ	836	895	1.00	0
. US-08-816	981	836	895	1.00	0
. US-08-816-977-1 Sequence 1, Ap	945	52	528	-0.44	0
. US-08-816	696	52	531	-0.44	0
. US-08-816-977-36 Sequence 36,	981	52	543	-0.44	0
-816-977-9 Sequence 9, Ap	1241	52	542	-0.44	_
. US-08-816-977-30 Sequence 30,	32	32	32	4.	0
US-08-816-977-28 Sequence 28,	32	23	56		0
. US-08-816-977-41 Sequence 41	56	18	20	'n.	0
. US-08-816-977-7 Sequence 7, Ap	267	11	92	.5	0
Sequence	294	11	102	-0.51	0
. US-08-816-977-40 Sequence	26	10	12	.2	0
. US-08-816-977-3 Sequence 3, Ap	267	10	86	S.	0
. US-08-816-977-22 Sequence	294	10	97	S.	0
. US-08-816-977-29 Sequence 29,	78	6	13	'n	O
. US-08-816-977-16 Sequence 16,	29	6	14	-0.52	_
Sequence 13,	53	6	12	ŝ	_
. US-08-816-977-12 Sequence 12,	29	6	15	'n	
Sequence 42,	26	80	Ξ	ū.	0
. US-08-816-977-14 Sequence 14,	28	ω	13	'n.	_
7. US-08-816-977-31 Sequence 31,	29	œ	13	J.	_
8. US-08-816-977-15 Sequence 15,	29	œ	14	S.	_
9. US-08-816-977-17 Sequence 17,	30	80	13	-0.52	_
0. US-08-816-977-44 Sequence 44,	32	œ	14	ĸ;	_
. US-08-816-977-18 Sequence 18	26	7	12	-0.52	_
22 HS-08-816-07-48 (1-2085)					
us-08-816-977-16	0881697	7			
Initial Score = 9 Optimized Score =	14 Si	Significance	ance =	-0.52	
5) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					

Initial Score = 9 Optimized Score = 14 Significance = -0.52 Residue Identity = 48% Matches = 14 Mismatches = 15 Gaps = 0 Conservative Substitutions = 0

23. US-08-816-977-48 (1-2085) US-08-816-977-13 Sequence 13, Application US/08816977 Initial Score - 9 Optimized Score - 12 Significance - 0.52 Residue Identity - 41% Matches - 12 Mismatches - 17 Gaps - 0 Conservative Substitutions - 0

24. US-08-816-977-48 (1-2085) US-08-816-977-12 Sequence 12, Application US/08816977

```
8 Optimized Score = 13 Significance = -0.52
46% Matches = 13 Mismatches = 15
0 Conservative Substitutions = 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 Optimized Score = 12 Significance = -0.52
46% Matches = 12 Mismatches = 14
0 Conservative Substitutions = 0
9 Optimized Score - 15 Significance - 0.52
51% Matches - 15 Mismatches - 14
0 Conservative Substitutions - 0
                                                                                                                                                                                                                                                                                                                                                                                                                        8 Optimized Score - 14 Significance - 0.52
48% Matches - 14 Mismatches - 15
0 Conservative Substitutions - 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Initial Score = 8 Optimized Score = 13 Significance = -0.52 Residue Identity = 43% Matches = 13 Mismatches = 17 Gaps = 0 Conservative Substitutions = 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26. US-08-816-977-48 (1-2085)
US-08-816-977-14 Sequence 14, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                          28. US-08-816-977-48 (1-2085)
US-08-816-977-15 Sequence 15, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29. US-08-816-977-48 (1-2085)
US-08-816-977-17 Sequence 17, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31. US-08-816-977-48 (1-2085)
US-08-816-977-18 Sequence 18, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                      Initial Score Residue Identity Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Initial Score -
Residue Identity -
Gaps -
                                                                                                                                                                                                             Initial Score Residue Identity Gaps
 Initial Score Residue Identity Gaps
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FastDB - Fast Pairwise Comparison of Sequences Release 5.4

Results file us-08-816-977-48-inv.res made by bobryen on Tue 18 Jun 102 12:49:40-PDT.

Query sequence being compared:US-08-816-977-48' (1-2085) Number of sequences searched: 34 Number of scores above cutoff: 34

Results of the initial comparison of US-08-816-977-48' (1-2085) with:

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100-	- / N	・・・ノエ	m s	i ac	•			•	, so	E 2-	a	0	i H	z	ن	- ঘ	0 s	SCORE 0 STDEV
	100-	100-	100-	-001		100-		100-		100-						100	100	100-001

### K-tuple Joining penalty Window size PARAMETERS Unitary 10 5.00 3.33 Similarity matrix Mismatch penalty Garanatry Carate penalty Current Score Randomization group

500 500

# SEARCH STATISTICS

Standard Deviation 3.37	
Median 13	
Mean 11	
res:	

Standard Deviation 3.37	Total Elapsed 00:00:00:00
Median 13	
Mean 11	CPU 00:00:91
Scores:	Times:

The scores below are sorted by initial score. Significance is calculated based on initial score. 18356 34 34 Number of residues: Number of sequences searched: Number of scores above cutoff:

A 100% identical sequence to the query sequence was not found.

The list of best scores is:

US-08-816-977-13 standard deviations above mean **** US-08-816-977-15 standard deviations above mean **** US-08-816-977-15 standard deviations above mean **** US-08-816-977-15 standard deviation from mean **** US-08-816-977-15 standard deviation from mean **** US-08-816-977-16 standard deviation from mean **** US-08-816-977-16 standard deviation of 2013 14 472 015 015 015 015 015 015 015 015 015 015	Sequence Name Description	Init Length Score	. Opt. e Score	Sig. F	rame
108-816-977-17 Sequence 17, Application 30 22 22 32 3.2 5.08-816-977-13 Sequence 31, Application 29 21 29 3.2 5.08-816-977-31 Sequence 31, Application 29 21 29 3.2 5.08-816-977-31 Sequence 36, Application from mean ****	**** 3 standard deviation	bove mean *	*		
**** 2 Standard deviations above mean **** *** 5 Standard deviation 29 21 21 2.9 **** 0 standard deviation 29 21 21 2.9 **** 0 standard deviation 10 20 21 21 2.9 **** 0 standard deviation 10 20 21 21 2.9 **** 0 standard deviation 10 20 21 21 2.9 **** 0 sequence 46, Application 2073 14 472 0.8 **** 0 sequence 48, Application 2127 14 486 0.8 *** 0 sequence 20, Application 2127 14 486 0.8 *** 0 sequence 20, Application 312 12 12 2.9 *** 0 sequence 19, Application 32 12 12 12 0.3 *** 0 sequence 19, Application 32 12 12 12 0.3 *** 0 sequence 19, Application 32 12 12 12 0.3 *** 0 sequence 21, Application 32 12 12 0.3 *** 0 sequence 24, Application 32 12 12 0.3 *** 0 sequence 34, Application 32 12 12 0.3 *** 0 sequence 37, Application 32 12 12 0.3 *** 0 sequence 37, Application 32 12 12 0.3 *** 0 sequence 37, Application 32 12 12 0.3 *** 0 sequence 37, Application 32 13 0.3 *** 0 sequence 37,	. US-08-816-977-17 Sequence 17, Applicatio	30 2	7	7	0
108-816-977-11 Sequence 31, Application 691 14 274 0.8 10-816-977-15 Sequence 48, Application 708-11 14 274 0.8 108-816-977-15 Sequence 48, Application 2085 14 469 0.8 108-816-977-15 Sequence 34, Application 2085 14 469 0.8 108-816-977-15 Sequence 37, Application 2085 13 293 0.5 108-816-977-15 Sequence 1, Application 15 291 12 15 0.3 10-816-977-15 Sequence 1, Application 15 291 12 15 0.3 10-816-977-15 Sequence 9, Application 29 12 12 15 0.3 10-816-977-15 Sequence 9, Application 29 12 12 15 0.3 10-816-977-15 Sequence 70, Application 29 12 12 15 0.3 10-816-977-15 Sequence 70, Application 29 12 12 15 0.3 10-816-977-15 Sequence 70, Application 20 12 12 15 0.3 10-816-977-15 Sequence 70, Application 20 12 12 15 0.3 10-816-977-15 Sequence 70, Application 20 12 12 15 0.3 10-816-977-15 Sequence 70, Application 20 12 12 10 0.8 1816-977-15 Sequence 10, Application 20 12 12 12 10 0.8 1816-977-15 Sequence 12, Application 20 12 12 12 0.9 10-816-977-15 Sequence 12, Application 20 12 12 12 0.9 10-816-977-15 Sequence 12, Application 20 12 12 12 0.9 11 0.8 1816-977-15 Sequence 12, Application 20 12 12 12 0.9 11 0.8 1816-977-15 Sequence 13, Application 20 12 12 12 0.9 11 0.9 10-816-977-15 Sequence 14, Application 20 12 12 12 0.9 11 0.9 10-816-977-14 Sequence 14, Application 20 12 12 12 0.9 11 0.9 10-816-977-14 Sequence 15, Application 20 20 17 17 0.8 18 0.9 18 0.9	**** 2 standard deviatio	bove mean *	*	•	•
108-816-977-36 Sequence 36. Application 2013 14 472 0.8 108-816-977-46 Sequence 46. Application 2015 14 469 0.8 108-816-977-45 Sequence 13. Application 2015 14 469 0.8 108-816-977-32 Sequence 13. Application 2136 13 293 0.5 108-816-977-1 Sequence 14. Application 2136 13 304 0.5 108-816-977-1 Sequence 19. Application 2136 13 304 0.5 108-816-977-1 Sequence 19. Application 32 12 12 0.3 108-816-977-2 Sequence 5. Application 991 12 303 0.3 108-816-977-3 Sequence 24. Application 991 12 303 0.3 108-816-977-5 Sequence 24. Application 991 12 303 0.3 108-816-977-5 Sequence 24. Application 05 204 11 88 0.0 108-816-977-5 Sequence 24. Application 05 204 11 98 0.0 108-816-977-7 Sequence 25. Application 05 204 11 98 0.0 108-816-977-7 Sequence 26. Application 05 204 11 98 0.0 108-816-977-7 Sequence 26. Application 29 9 11 0.0 108-816-977-7 Sequence 26. Application 20 9 11 0.0 108-816-977-7 Sequence 26. Application 20 9 11 0.0 108-816-977-7 Sequence 26. Application 20 9 11 0.0 108-816-977-1 Sequence 27. Application 20 9 11 0.0 108-816-977-1 Sequence 27. Application 20 0.0 108-81	. 03-00-010-9//-51 Sequence 51, Applicatio	2 67 *** ueom mor		j.	>
108-816-977-46 Sequence 46, Application 2073 14 472 0.8	. US-08-816-977-36 Segmence 36. Applicat	981	27	α	C
108-816-977-48   Sequence 48, Application 2083   14   486   0.88	. US-08-816-977-46 Sequence 46. Applicati	2073 1	47	α.	· C
108-816-977-32 Sequence 32, Application   2127   14 486   0.88     108-816-977-3 Sequence 34, Application   0.89     108-816-977-1 Sequence 10, Application   0.89     108-816-977-2 Sequence 10, Application   0.89     108-816-977-3 Sequence 10, Application   0.89     108-816-977-3 Sequence 24, Application   0.89     108-816-977-3 Sequence 38, Application   0.80     108-816-977-3 Sequence 39, Application   0.80     108-816-977-1 Sequence 37, Application   0.80     108-816-977-1 Sequence 37, Application   0.80     108-816-977-2 Sequence 37, Application   0.80     108-816-977-2 Sequence 39, Application   0.80     108-816-977-1 Sequence 10, Application   0.80     108-816-977-1 Sequence 11, Application   0.80     108-816-977-1 Sequence 12, Application   0.80     108-816-977-1 Sequence 13, Application   0.80     108-816-977-1 Sequence 14, Application   0.80     108-816-977-1 Sequence 14, Application   0.80     108-816-977-1 Sequence 17, Application   0.80     108-816-977-2 Sequence 18, Application   0.80     108-816-977-1 Sequence 19,	. US-08-816-977-48 Sequence 48. Applicati	2085	4.6	0	0
108-816-977-34 Sequence 34, Application 2136 14 486 0.8 108-816-977-35 Sequence 20, Application US 945 133 293 0.5 108-816-977-20 Sequence 20, Application US 1241 13 364 0.5 108-816-977-19 Sequence 19, Application US 1241 13 364 0.5 108-816-977-19 Sequence 19, Application 29 12 12 15 0.3 108-816-977-15 Sequence 5, Application 32 12 17 0.3 108-816-977-30 Sequence 24, Application 991 12 295 0.3 108-816-977-30 Sequence 30, Application 991 12 303 0.3 108-816-977-30 Sequence 24, Application 990 12 301 0.3 10.8 16-977-30 Sequence 3, Application 1235 12 12 15 0.3 108-816-977-30 Sequence 3, Application 125 12 12 0.0 108-816-977-30 Sequence 3, Application 20 10 10 10 10 10 10 10 10 10 10 10 10 10	. US-08-816-977-32 Sequence 32, Applicat	2127 1	48	8	0
1-08-816-977-1 Sequence 1, Application US 945 13 293 0.5 108-816-977-1 Sequence 20, Application 969 13 304 0.5 108-816-977-9 Sequence 9, Application 29 12 15 0.3 108-816-977-19 Sequence 16, Application 29 12 12 0.3 108-816-977-15 Sequence 16, Application 32 12 17 0.3 10-108-816-977-15 Sequence 17, Application 32 12 17 0.3 10-108-816-977-2 Sequence 24, Application 991 12 301 0.3 10-108-816-977-2 Sequence 24, Application 991 12 301 0.3 10-108-816-977-2 Sequence 27, Application 991 10-10-108-816-977-2 Sequence 27, Application 991 10-10-108-816-977-2 Sequence 17, Application 991 10-10-108-816-977-1 Sequence 18, Application 991 17-0.5 10-108-816-977-1 Sequence 19, Application 991 17-0.5 10-108-910-9108-9109-9109-9109-9109-9109	. US-08-816-977-34 Sequence 34, Applicati	2136 1	48	α.	0
1-08-816-977-20 Sequence 20, Application 969 13 304 0.5 1-08-816-977-9 Sequence 19, Application US 1241 13 364 0.5 1-08-816-977-9 Sequence 19, Application 29 12 15 0.3 1-08-816-977-9 Sequence 19, Application 29 12 15 0.3 1-08-816-977-7 Sequence 45, Application 13 2 12 17 0.3 1-08-816-977-3 Sequence 20, Application 12 37 12 17 0.3 1-08-816-977-2 Sequence 21, Application 26 11 12 0.0 1-08-816-977-2 Sequence 10, Application 26 11 12 0.0 1-08-816-977-3 Sequence 22, Application 05 267 11 88 0.0 1-08-816-977-3 Sequence 24, Application 05 267 11 88 0.0 1-08-816-977-2 Sequence 7, Application 26 9 13 -0.5 1-08-816-977-5 Sequence 7, Application 26 9 13 -0.5 1-08-816-977-5 Sequence 7, Application 26 9 13 -0.5 1-08-816-977-7 Sequence 10, Application 26 9 13 -0.5 1-08-816-977-7 Sequence 16, Application 29 9 17 -0.5 1-08-816-977-1 Sequence 17, Application 29 9 17 -0.5 1-08-816-977-1 Sequence 17, Application 29 9 17 -0.5 1-08-816-977-1 Sequence 17, Application 29 9 17 -0.5 1-08-816-977-1 Sequence 19, Application 29 9 17 -0.5 1-08-816-977-1 Sequence 19, Application 20 20 17 -1.0 10-08-816-977-1 Sequence 19, Application 20 20 17 -1.0 10-08-816-977-1 Sequence 29, Application 20 20 17 -1.0 17 -0.5 10-08-816-977-1 Sequence 11, Application 20 20 20 20 20 20 20 20 20 20 20 20 20	. US-08-816-977-1 Sequence 1, Application	945 1	29	S	0
1.08-816-977-9 Sequence 9, Application US 1241 13 364 0.5   1.08-816-977-19 Sequence 16, Application 29 12 15 0.3   1.08-816-977-15 Sequence 16, Application 32 12 17 0.3   1.08-816-977-15 Sequence 30, Application US 254 12 295 0.3   1.08-816-977-2 Sequence 5, Application US 254 12 295 0.3   1.08-816-977-3 Sequence 17, Application 254 11 12 0.0   1.08-816-977-3 Sequence 3, Application 254 11 12 0.0   1.08-816-977-3 Sequence 27, Application US 267 10 91 0.3   1.08-816-977-2 Sequence 27, Application US 267 10 91 0.0   1.08-816-977-2 Sequence 27, Application US 267 10 91 0.0   1.08-816-977-5 Sequence 27, Application 294 11 98 0.0   1.08-816-977-5 Sequence 27, Application 294 11 98 0.0   1.08-816-977-7 Sequence 27, Application 294 11 0.0   1.08-816-977-15 Sequence 17, Application 29 9 17 0.5   1.08-816-977-15 Sequence 12, Application 29 9 17 0.5   1.08-816-977-15 Sequence 12, Application 29 9 17 0.5   1.08-816-977-15 Sequence 14, Application 29 9 17 0.5   1.08-816-977-15 Sequence 29, Application 29 9 17 0.5   1.08-816-977-15 Sequence 14, Application 29 9 17 0.0   1.08-816-977-15 Sequence 17, Application 29 9 17 0.0   1.08-816-977-15 Sequence 17, Application 29   11 0.1   11 0.1   11 0.1   11 0.1   11 0.1   11 0.1   12 0.1   13 0.2   14 0.8   15 0.2   16 0.2   17 0.3   18 0.3   18 0.3   18 0.4	. US-08-816-977-20 Sequence 20, Applicatio	1 696	30	5.	0
108-816-977-19 Sequence 19, Application 29 12 15 0.3	0. US-08-816-977-9 Sequence 9, Application	1241 1	36	5	0
10.8   10.8   12   12   13   13   13   13   13   13	<ol> <li>US-08-816-977-19 Sequence 19, Applicatio</li> </ol>	29 1	-	٣.	0
1.08 816-977-45 Sequence 45, Application 32 12 17 0.3 1.08 816-977-30 Sequence 5, Application US 954 12 295 0.3 1.08 816-977-5 Sequence 24, Application US 954 12 295 0.3 1.08 816-977-24 Sequence 10, Application 990 12 301 0.3 1.08 816-977-13 Sequence 10, Application 990 12 301 0.3 1.08 816-977-14 Sequence 22, Application 26 11 12 0.0 1.08 816-977-2 Sequence 22, Application 26 11 12 0.0 1.08 816-977-2 Sequence 27, Application 26 10 91 0.0 3 1.08 816-977-2 Sequence 27, Application 26 9 11 0.0 3 1.08 816-977-2 Sequence 17, Application 26 9 13 0.0 3 1.08 816-977-1 Sequence 18, Application 26 9 13 0.0 5 1.08 816-977-1 Sequence 17, Application 26 9 13 0.0 5 1.08 816-977-1 Sequence 17, Application 27 9 9 17 0.0 5 1.08 816-977-1 Sequence 17, Application 27 9 9 17 0.0 5 1.08 816-977-2 Sequence 28, Application 29 9 17 0.0 5 1.08 816-977-2 Sequence 29, Application 27 9 9 17 0.0 5 1.08 816-977-2 Sequence 29, Application 27 1 1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.	2. US-08-816-977-16 Sequence 16, Applica	29 1		٣.	0
108 816-977-30 Sequence 30, Application 32 12 295 0.3   108 816-977-5 Sequence 24, Application 991 12 295 0.3   108 816-977-5 Sequence 24, Application 991 12 301 0.3   108 816-977-10 Sequence 10, Application 26 11 372 0.0   108 816-977-12 Sequence 22, Application 05 267 11 88 0.0   108 816-977-2 Sequence 25, Application 05 267 11 88 0.0   108 816-977-2 Sequence 26, Application 05 267 10 91 0.0   108 816-977-2 Sequence 26, Application 05 267 10 97 0.0   108 816-977-15 Sequence 16, Application 05 267 10 97 0.0   108 816-977-15 Sequence 17, Application 26 9 13 0.0   108 816-977-15 Sequence 17, Application 26 9 13 0.0   108 816-977-15 Sequence 17, Application 26 9 17 0.0   108 816-977-15 Sequence 17, Application 27 9 9 17 0.0   108 816-977-15 Sequence 28, Application 26 9 17 0.0   108 816-977-15 Sequence 28, Application 27 9 9 17 0.0   108 816-977-15 Sequence 28, Application 27 11 0.0   108 816-977-17 Sequence 17, Application 28 17 11 1.1   108 816-977-17 Sequence 17, Application 28 7 11 1.1   108 816-977-17 Sequence 17, Application 28 7 11 1.1   108 816-977-17 Sequence 17, Application 28 7 11 1.1   109 816-977-17 Sequence 29, Application 28 7 11 1.1   111	<ol> <li>US-08-816-977-45 Sequence 45, Applicati</li> </ol>	32 1	-	ű.	0
108 816-977-5 Sequence 5, Application US 954 12 295 0.3 1.0 8.16-977-5 Sequence 24, Application 990 12 303 0.3 1.0 8.16-977-24 Sequence 24, Application 990 12 303 0.3 1.0 8.16-977-10 Sequence 10, Application 990 12 301 0.3 1.0 8.16-977-12 Sequence 22, Application US 267 10 91 0.0 1.0 8.16-977-2 Sequence 26, Application US 267 10 91 0.0 1.0 8.16-977-2 Sequence 26, Application US 24 10 96 0.0 1.0 8.16-977-2 Sequence 26, Application US 24 10 91 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	4. US-08-816-977-30 Sequence 30, Application	32 1		E.	0
1.08 816-977-18 Sequence 24, Application 981 12 303 0.3 1.08 816-977-28 Sequence 10, Application 1235 12 372 0.3 1.08 816-977-10 Sequence 10, Application 1235 12 372 0.3 1.08 816-977-2 Sequence 2. Application 26 11 12 0.0 1.08 816-977-2 Sequence 2. Application 0.2 26 11 12 0.0 1.08 816-977-2 Sequence 2. Application 0.2 26 10 91 -0.3 1.08 816-977-2 Sequence 2. Application 0.2 26 10 91 -0.3 1.08 816-977-1 Sequence 1. Application 2. 2 2 13 -0.5 1.08 816-977-1 Sequence 1. Application 2. 2 2 13 -0.5 1.08 816-977-1 Sequence 1. Application 2. 2 2 13 -0.5 1.08 816-977-1 Sequence 1. Application 2. 2 2 13 -0.5 1.08 816-977-1 Sequence 2. Application 2. 2 2 17 -0.5 1.09 816-977-1 Sequence 2. Application 2. 2 2 17 -0.5 1.09 816-977-2 Sequence 2. Application 2. 2 2 17 -0.5 1.09 816-977-2 Sequence 2. Application 2. 2 2 17 -0.5 1.09 816-977-1 Sequence 2. Application 2. 2 2 17 -0.5 1.09 816-977-1 Sequence 2. Application 2. 2 2 17 -0.8 11 -1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	5. US-08-816-977-5 Sequence 5, Application	954 1	5	m.	0
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1-08-816-977-40 Sequence 40, Application 26 9 13 -0.5 10-16-977-15 Sequence 18, Application 26 9 13 -0.5 10-16-977-15 Sequence 15, Application 29 9 17 -0.5 108-816-977-15 Sequence 15, Application 29 9 17 -0.5 108-816-977-44 Sequence 14, Application 29 9 17 -0.5 108-816-977-44 Sequence 43, Application 28 8 13 -0.6 10-16-16-16-16-16-16-16-16-16-16-16-16-16-	3. US-08-816-977-26 Sequence 26. Applicati	294	٠ ٥	. ~	0
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1-08-816-977-44 Sequence 44, Application 32 9 17 -0.5 9 18 -0.8 916-977-43 Sequence 43, Application 28 8 13 -0.8 1	7. US-08-816-977-12 Sequence 12, Applicati	6	Н	0.5	0
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1-08-816-977-14 Sequence 14, Application 28 8 14 -0.8 1-08-816-977-28 Sequence 29, Application 26 7 16 -0.8 1-0.8	9. US-08-816-977-43 Sequence 43, Applicati	25	Т	0.8	0
108-816-977-28 Sequence 28, Application	<ol> <li>US-08-816-977-14 Sequence 14, Applicati</li> </ol>	80	-	0.8	0
**** 1 standard deviation below mean ****  1-08-816-977-41 Sequence 41, Application 26 7 16 -1.1  1-08-816-977-29 Sequence 29, Application 28 7 12 -1.1  1-08-816-977-13 Sequence 13, Application 29 7 11 -1.1  1-816-977-48' (1-2085)  1-816-977-48' (1-2085)  Score 2 Optimized Score 22 Significance 3.2  Identity 88% Matches 22 Significance 3.2  Identity 2 88% Matches 20 Conservative Substitutions 20 X 30 Conservative Substitutions 3.2  X 10 20 X 30  TTATTTACCGTTGTATATAAAAACTGGACTTTCTGTTCAGAAA  CGAGTTTACCCGTTGTATAAAAACCTGACTTTCTGTTCAGAAA  CGAGTTTACCCGTTGTATAAAAAACCTGACTTTCTGTTCAGAAAAC  X 10 20 X 30	<ol> <li>US-08-816-977-28 Sequence 28, Applicati</li> </ol>	7	_	0.8	0
1:08-816-977-41 Sequence 41, Application 26 7 16 -1.1 1:08-816-977-29 Sequence 13, Application 28 7 12 -1.1 1:08-816-977-29 Sequence 13, Application 29 7 11 -1.1 1:08-816-977-48 (1-2085) 1:0816-977-48 (1-2085) 1:0816-977-71 Sequence 17, Application US/08816977 1:0816-977-71 Sequence 13, Application US/08816977 1:0816-977-71 Sequence 13, Application US/08816977 1:0816-977-72 Sequence 13, Application US/08816977	**** 1 standard deviation	elow mean **	*		
	<ol> <li>US-08-816-977-41 Sequence 41, Applicatio</li> </ol>	9	_	1.1	0
-08-816-977-13 Sequence 13, Application 29 7 11 -1.1	3. US-08-816-977-29 Sequence 29, Applicatio	œ	٦	1.1	0
-816-977-48' (1-2085) -816-977-17 Sequence 17, Application US/08816977  Score 22 Optimized Score 22 Significance 3.2 Identity 88% Matches 22 Mismatches 70 Conservative Substitutions 7  X 10 20 X 30 TTATTTACCGTTGTATATAAAACTGGACTTTCTGTTCAGAAA  CGAGTTTACCCGTTGTATAAAAAC  CGAGTTTACCCGTTGTATAAAAAC  X 10 20 30	4. US-08-816-977-13 Sequence 13, Application	б	-	1.1	0
-816-977-17 Sequence 17, Application US/08816977  Score = 22 Optimized Score = 22 Significance = 3.2 Identity = 88% Matches = 22 Mismatches =	. US-08-816-977-48' (1-2085)				
Score = 22 Optimized Score = 22 Significance = 3.2  Identity = 88% Matches = 22 Mismatches = 2	S-08-816-977-17 Sequence 17, Application	70881697			
X 10 20 X 30 40 TATTTACCCGTTGTATAAAACTGTGACTTTCTGTTCAGAAA GGCTCGAGTTTACCCGTTGTATAAAAAC X 10 20 30	Score = 22 Optimized Score = Identity = 88% Matches = 0 Conservative Substit	22 Si 22 Mi	ō.	. 2	
X 10 X 30 X 30 TTATTTACCGTTGTATAAAACTGTGACTTTCTGTTCAGAAA				•	
20	X 10 X 30 TATTTACCGTTGTATATAAAACTGTGACTTTCTGT	10 FCAGAAA			
	20				

12. US-08-816-977-48' (1-2085) US-08-816-977-16 Sequence 16, Application US/08816977

12 Optimized Score - 12 Significance - 0.30 41% Matches - 12 Mismatches - 17 0 Conservative Substitutions - 0 Initial Score Residue Identity Gaps

25. US-08-816-977-48' (1-2085)
US-08-816-977-18 'Sequence 18', Application US/08816977

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9 Optimized Score - 13 Significance - 0.59 50% Matches - 13 Mismatches - 13 0 Conservative Substitutions - 0
                                                                                                                                                                                                                                                               Initial Score = 9 Optimized Score = 13 Significance = -0.59
Residue Identity = 44% Matches = 13 Mismatches = 16
Gaps - 0 Conservative Substitutions = 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 Optimized Score = 17 Significance = -0.59
58% Matches = 17 Mismatches = 12
0 Conservative Substitutions = 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Initial Score • 8 Optimized Score • 14 Significance • -0.89
Residue Identity • 50% Matches • 14 Mismatches • 14
Gaps • 0 Conservative Substitutions • 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 Optimized Score - 11 Significance --1.19
37% Matches - 11 Mismatches - 18
0 Conservative Substitutions 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1410 1420 1430 1440 1470 1450 1460 1470 GGTCATCGGGTGATCGGTGTTCGCATTCATGTG
                                                                      26. US-08-816-977-48' (1-2085)
US-08-816-977-15 Sequence 15, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27. US-08-816-977-48' (1-2085)
US-08-816-977-12 Sequence 12, Application US/08816377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30. US-08-816-977-48' (1-2085)
US-08-816-977-14'Sequence 14, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34. US-08-816-977-48' (1-2085)
US-08-816-977-13 gequence 13, Application US/08816977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCTCGAGACTGCTAATAGTTCTGCGCAT
X 10 X
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Residue Identity **
Gaps
Initial Score -
Residue Identity -
Gaps -
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